

SEMICONDUCTOR LASER

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Abstract

PURPOSE: To stabilize the amount of projection light by inclining a projection window of laser beam and by controlling projection power of laser according to the light amount which is received at a PIN diode arranged at the side.

CONSTITUTION: A laser chip 3 is fixed to a post 2 on a base 1 and front projection light 10 is projected from an upper edge surface of the laser chip 3. A projection window 21 is arranged aslant to an optical axis and its angle depends on a thickness of the projection window 21 and an astigmatic difference of a laser. The beam reflected at the projection window 21 incidents to a PIN diode 6 which is fixed to a PIN diode post 22 at the side and the beam reflected at a surface of the PIN diode 6 returns to the laser chip 3, resulting in the reduction of noises. The amount of projection light from a laser can be stabilized in this way.

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